REMARKS/ARGUMENTS

Favorable consideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-20 are presently pending in this application, Claims 1 and 3-8 having been amended and Claims 9-20 having been newly added by the present amendment.

In the outstanding Office Action, Claims 1-8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Pitcher, Jr. (U.S. Patent 4,417,908) in view of EP 1 184 066 (hereinafter "EP '066).

First, Applicants acknowledge with appreciation the courtesy of a personal interview granted to Applicants' representative on November 17, 2008. During the interview, the outstanding issues were discussed, and arguments in support of the claims' patentability were presented. These arguments are reiterated and supplemented below.

Claims 1 and 3-8 have been amended to clarify the subject matter recited therein and also to correct improper multiple dependencies, and Claims 9-20 have been newly added based on the subject matters recited in Claims 4-8. These amendments and additions in the claims are believed to find support in the specification, claims and drawings as originally filed, and no new matter is believed to be added thereby. If, however, the Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work in a joint effort to derive mutually satisfactory claim language.

Before addressing the rejection based on the cited references, a brief review of Claim 1 as currently amended is believed to be helpful. Claim 1 is directed to a columnar honeycomb structural body and recites "a porous ceramic block having a plurality of through holes extending in parallel with one another in a length direction of the porous ceramic block, the porous ceramic block having a wall portion interposed between the through holes, wherein the through holes have one of ends sealed such that an opening area of one end face

of the through holes is larger than an opening area of the other end face of the through holes, the wall portion has a plurality of micro pores having an average pore diameter in a range from 5 to 30 μm, the micro pores include large micro pores having a pore diameter two or more times larger than the average pore diameter, and the large micro pores have a capacity of which a rate is set to 30% or less of a capacity of the micro pores in entirety."

By providing a porous ceramic block having such micro pores, particulates are not rigidly trapped within the wall portion and can be more easily removed from the surface of the wall portion, thereby preventing heavy accumulation of the particulates on and inside the surface of the wall portion and suppressing a sudden rise in pressure loss over a period of time. For example, Tables on pages 39, 43, 47 and 51 of the specification can be shown in the attached Figures 1 and 2 where the pressure losses upon collecting 6g/l of particulates are significantly low for the filters in accordance with the claimed structural features.

The Office Action states that Claim 1 is unpatentable over Pitcher, Jr. and EP '066 because "EP '066 teaches ... micro pores having a pore diameter two or more times larger (pores diameter of 10 μm or more is 20% less than) than the average pore diameter (3-7 μm)" and that "[s]uch configuration provides a honeycomb filters with superior in trapping efficiency for fine solid particulates with minimum pressure loss." The Office Action concludes that "[t]hus, it would have been obvious ... to modify the device of Pitcher, Jr. with the micro pore ratio as taught by EP '066 in order to gain the above benefits." However, ***to efficiently capture fine solid particulates,*** EP '066 directs a porosity of 40% or more, an average pore diameter of 3 to 7 μm and a volume of pores having diameters of 10 μm or more, or 20% or less relative to the total pore volume[1] and that ***to suppress an increase in pressure loss,*** it directs to the thickness of the partition walls functioning as a filtration layer

[1] See EP '066, paragraph [0013].

are set at 250 μm or less.[2] EP '066 not only describes a honeycomb structure in which the opening areas on the inlet and outlet sides are set equal and thus only weak force is exerted on the particles passing through the partition wall, but also it sets different structural criteria, the pore size and distribution only in dealing with the trapping efficiency and the partition wall thickness in dealing with the pressure loss. Thus, the descriptions on the structural dimensions and distribution of the micro pores in EP '066 are not believed to lead to the improvement in the pressure loss.

Furthermore, Pitcher, Jr. simply shows various structures in which the opening areas on the inlet and outlet sides are sealed differently, and nowhere does Pitcher, Jr. describe or suggest a ceramic structure having certain micro pores. Nor does Pitcher, Jr. teach or suggest preventing heavy accumulation of the particulates on and inside the surface of the wall portion and suppressing a sudden rise in pressure loss over a period of time.

As such, it is respectfully submitted that neither EP '066 nor Pitcher, Jr. teaches or suggest "a porous ceramic block having ... through holes [and] a wall portion interposed between the through holes, wherein the through holes have one of ends sealed such that an opening area of one end face of the through holes is larger than an opening area of the other end face of the through holes, the wall portion has a plurality of micro pores having *an average pore diameter in a range from 5 to 30 μm, the micro pores include large micro pores having a pore diameter two or more times larger than the average pore diameter, and the large micro pores have a capacity of which a rate is set to 30% or less of a capacity of the micro pores in entirety*" as recited in amended Claim 1 (emphasis added in italic). Therefore, the structure recited in Claim 1 is clearly distinguishable from EP '066 and Pitcher, Jr., and even their combined teachings are not believed to render the structure recited in Claim 1 obvious.

[2] See EP '066, paragraph [0014].

For the foregoing reasons, Claim 1 is believed to be allowable. Furthermore, since Claims 2-20 depend directly or indirectly from Claim 1, substantially the same arguments set forth above also apply to these dependent claims. Hence, Claims 2-20 are believed to be allowable as well.

In view of the amendments and discussions presented above, Applicants respectfully submit that the present application is in condition for allowance, and an early action favorable to that effect is earnestly solicited.

Respectfully submitted,

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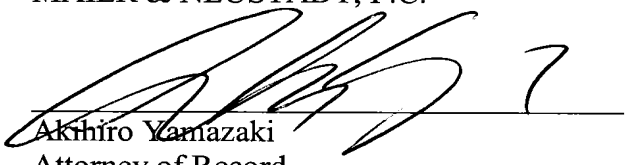

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